

Exhibitions

179-208 OK - RBS. 4/10/42

#192	-	30th	Ann. Rpt.	1918	}	OK - RBS
#198	-	31/32	Ann. Rpts	1919/1920		
#203	-	33d	Ann. Rpt	1921		
#208	-	34th	Ann. Rpt.	1922		

4/10/42

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RESULTS OF SEED TESTS

Made July 1, 1920, to July 1, 1921

The number of samples of seed tested during the year was 609. Of this number 111 were private tests on samples submitted by individuals. Farmers who plant seed of their own raising find the State Laboratories a convenient place to learn its germinating qualities. Dealers who plan to sell local seed or seed which has been held over a year request tests for germination and purity for the purpose of tagging such seed to comply with the State Law.

The other 498 tests represent the official samples collected by the State Department of Agriculture to check up on the printed guarantees attached by the wholesalers and thus protect the purchaser against possible misstatements in labelling. All this inspection work is done with a view of protecting not only the buyer but the legitimate dealer against unscrupulous persons who might endeavor to market inferior seed by means of unwarranted guarantees. There is little question that the inspection work is making it possible for the intelligent farmer to eliminate a large percentage of the guesswork in buying seeds if he will but read the guarantees and profit thereby.

In presenting herewith the results of findings for the 498 official samples, the customary allowances for variation are made. A difference of 5 in germination for all seeds guaranteed 90% and above is considered satisfactory and a variation of 10 on guarantees below 90%. In relation to purity the so-called "double tolerance table" is used. This table is adapted from a formula stated $T = \frac{2 (.1 + 100 - P)}{10}$ in which "T" stands for the variation allowed and "P" for the percentage of purity found. Those interested should note that this formula is used in conformity with the ideas of the Association of Official Seed Analysts of North America.

Samples of seed that test sufficiently high in germination or purity respectively to come within the variation suggested are marked "Satisfactory," samples that test higher than the guarantee are marked "Above," and sam-

ples that fall below "satisfactory" are designated by actual figures from the test.

The writer wishes to express appreciation for the painstaking assistance rendered by Messrs. T. B. Gadd and G. B. Olsson in this work.

New Seed Law

The new seed law passed at the last session of the State Legislature is now in effect. Under this law the inspection work for the coming season will be undertaken. This law and certain rules and regulations therein provided for are herewith presented. Additional copies of the following subject matter may be obtained by writing the State Department of Agriculture, Concord, N. H.

SEED EXAMINATION, 1921

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3470	ALFALFA (<i>Turkestan</i>)	A	99	S	95
	Abbott Grocery Co., Keene, N. H.				
3282	ALFALFA (<i>White Mt.</i>)	S	99.5	A	95
	E. H. Bryant, Tilton, N. H.				
3124	ALFALFA (<i>Pan. Amer.</i>)	A	99.5	A	85
	Hill Hdw. & Paint Co., Nashua, N. H.				
3329	ALFALFA (<i>White Mt.</i>)	S	99.5	S	95
	Holbrook Grocery Co., Woodsville, N. H.				
3330	ALFALFA (<i>Monadnock</i>)	A	98	A	90
	Holbrook Grocery Co., Woodsville, N. H.				
3436	ALFALFA (<i>White Mt.</i>)	S	99	A	95
	Holbrook Grocery Co., Keene, N. H.				
3191	ALFALFA (<i>Utah -2</i>)	A	98	73.5	90
	Manchester Hdw. Co., Manchester, N. H.				
2974	ALFALFA	S	99	A	90
	Thompson & Hoague Co., Concord, N. H.				
3201	ALFALFA	A	95	A	80
	J. B. Varick Co., Manchester, N. H.				
3202	ALFALFA (<i>Grimm</i>)	A	99	A	85
	J. B. Varick Co., Manchester, N. H.				
3412	ALFALFA (<i>87164</i>)	S	99.5	S	95
	F. B. Williams, Enfield, N. H.				
3074	ALFALFA (<i>Eureka</i>)	A	99	S	95
	E. T. Willson, Farmington, N. H.				
3471	ALSIKE (<i>R</i>)	S	98	A	90
	Abbott Grocery Co., Keene, N. H.				
3380	ALSIKE (<i>Pan Amer.</i>)	A	97.5	A	90
	Annis Grain & Lumber Co., Londonderry, N. H.				
3387	ALSIKE (<i>Pan Amer.</i>)	A	97	A	90
	Annis Grain & Lumber Co., Derry, N. H.				
2992	ALSIKE	A	95.1	A	90
	Ayers & Jenkins, Rochester, N. H.				
3287	ALSIKE (<i>Pan Amer.</i>)	A	97	A	90
	Bailey & Rogers, Tilton, N. H.				
3468	ALSIKE (<i>XX</i>)	A	84	A	85
	Boynton & Ellis, Claremont, N. H.				
3251	ALSIKE (<i>3482</i>)	A	96	S	90
	W. B. Brown, Ashland, N. H.				
2997	ALSIKE (<i>Imperial</i>)	A	97.8	A	86
	Freeman Carson, Rochester, N. H.				
3430	ALSIKE (<i>A. R. C.</i>)	A	94	A	90
	Charlestown Grain Co., Charlestown, N. H.				
3209	ALSIKE (<i>Pan Amer.</i>)	A	97.5	A	90
	Chase Grain Co., Plymouth, N. H.				
3144	ALSIKE (<i>White Mt.</i>)	A	98.5	S	92
	Chas. A. Daniels, Hudson, N. H.				
3337	ALSIKE (<i>Pan Amer.</i>)	A	97	A	90
	Edson & Kinne, Littleton, N. H.				
3340	ALSIKE (<i>XX</i>)	A	84	A	82
	Edson & Kinne, Littleton, N. H.				
3013	ALSIKE (<i>Pan Amer.</i>)	A	97.5	A	90
	Eugene C. Foss Co., Rochester, N. H.				
3492	ALSIKE (<i>Pan Amer.</i>)	A	97.5	A	90
	W. F. French, Milford, N. H.				
3458	ALSIKE (<i>XX</i>)	90.6	95	A	91
	Frost & Pierce, Claremont, N. H.				
3477	ALSIKE (<i>White Mt.</i>)	A	98.5	A	92
	Goodnow & Derby, Peterboro, N. H.				
3498	ALSIKE (<i>Pan Amer.</i>)	A	97	A	90
	Goodwin Bros., E. Jaffrey, N. H.				
3107	ALSIKE	A	97	A	90
	J. H. Griffin, Newmarket, N. H.				
3125	ALSIKE (<i>Pan Amer.</i>)	A	97.5	A	90
	Hill Hdw. & Paint Co., Nashua, N. H.				
3323	ALSIKE (<i>XX</i>)	A	84	A	85
	Holbrook Grocery Co., Woodsville, N. H.				

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3324	ALSIKE (XXX)..... Holbrook Grocery Co., Woodsville, N. H.	A	98	A	88
3306	ALSIKE (Pine Tree)..... C. H. Jameson, Colebrook, N. H.	A	96.9	S	91
3405	ALSIKE (Imperial)..... Lewis Bros., Lebanon, N. H.	A	97.9	A	94
3445	ALSIKE (Eureka)..... R. T. Martin, Newport, N. H.	A	98	A	90
3229	ALSIKE (Pan Amer.)..... Meredith Grain Co., Meredith, N. H.	A	97.5	A	90
3166	ALSIKE..... J. J. Moreau & Son, Manchester, N. H.	A	97	A	90
3243	ALSIKE (Pan Amer.)..... J. S. Morrill, Laconia, N. H.	A	97.5	A	90
3131	ALSIKE..... W. R. Peterson, Nashua, N. H.	A	97	A	90
3237	ALSIKE (86866)..... Rand & Dearborn, Laconia, N. H.	A	96.7	A	85
2916	ALSIKE (Pan Amer.)..... H. C. Sanborn, Laconia, N. H.	A	97.5	A	90
2917	ALSIKE (Eureka)..... H. C. Sanborn, Laconia, N. H.	A	98.5	S	90
3053	ALSIKE..... J. H. Seavey, Dover, N. H.	A	96.4	A	85
3278	ALSIKE..... Shepard Bros., Franklin, N. H.	95.3	97	S	93
2966	ALSIKE..... Somersworth Grain Co., Somersworth, N. H.	A	93.4	A	90
3325	ALSIKE (145142)..... F. B. Spaulding Co., Lancaster, N. H.	A	95.8	A	90
3266	ALSIKE (Pan Amer.)..... C. P. Stevens, Franklin, N. H.	A	95	A	90
2969	ALSIKE (86910)..... Thompson & Hoague Co., Concord, N. H.	A	96.7	S	94
3172	ALSIKE..... J. B. Varick Co., Manchester, N. H.	A	96.7	A	85
3073	ALSIKE (Liberty)..... E. T. Willson, Farmington, N. H.	A	96	A	90
3110	ALSIKE (Eureka)..... W. A. Young, Exeter, N. H.	A	98.5	A	90.7
3096	BARLEY (6-row)..... R. L. Costello, Portsmouth, N. H.	A	97.8	A	98
3487	BARLEY (6-row)..... G. H. Eames & Son, Keene, N. H.	S	99	A	89
3335	BARLEY (Monadnock)..... Edson & Kinne, Littleton, N. H.	A	98	A	95
3082	BARLEY (Ontario)..... G. R. Emerson, Farmington, N. H.	97.6	99	A	90
3014	BARLEY (Chevalier)..... Eugene C. Foss Co., Rochester, N. H.	S	98	S	90
3457	BARLEY (Stanford)..... Frost & Pierce, Claremont, N. H.	A	95	A	90
3441	BARLEY (6-row)..... L. W. Gile, Newport, N. H.	A	98	A	98
3396	BARLEY (6-row)..... C. M. Hildreth & Son, Lebanon, N. H.	A	98	A	90
3400	BARLEY (6-row)..... A. H. Hill, Lebanon, N. H.	A	97	98	..
3410	BARLEY (6-row)..... L. C. Hill, Enfield, N. H.	A	97	98	..
3314	BARLEY (6-row)..... Holbrook Grocery Co., Woodsville, N. H.	S	99	S	96
3345	BARLEY (White Mt.)..... Holbrook Grocery Co., Woodsville, N. H.	A	98.5	A	97
3429	BARLEY (White Mt.)..... Holbrook Grocery Co., Keene, N. H.	A	98.5	A	97
3308	BARLEY (6-row)..... C. H. Jameson, Colebrook, N. H.	S	98	A	94

A—Above
S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3193	BARLEY (109040) Manchester Hardware Co., Manchester, N. H.	A	97.8	A	98
3244	BARLEY J. S. Morrill, Laconia, N. H.	A	98	A	90
3344	BARLEY (Monadnock) Moulton & Clark, Lisbon, N. H.	A	97.5	A	92
3025	BARLEY (100030) F. W. Neal, Dover, N. H.	S	98	A	93
3304	BARLEY (100091) D. A. Noyes, Colebrook, N. H.	A	97	..	..
3153	BARLEY (Hy-Grade Montana) W. F. Peel, Nashua, N. H.	S	99	A	97
3355	BARLEY (6-rowed) I. C. Richardson, Littleton, N. H.	*	98	A	90
3084	BARLEY (Likewater) S. A. Schurman & Son, Portsmouth, N. H.	A	98	A	90
3050	BARLEY (2-rowed) J. H. Seavey, Dover, N. H.	S	98.7	A	92
2962	BARLEY (6-rowed) Somersworth Grain Co., Somersworth, N. H.	A	98	A	90
3362	BARLEY (6-rowed) F. B. Spaulding Co., Lancaster, N. H.	94	96	S	93
2970	BARLEY (6-rowed) Thompson & Hoague Co., Concord, N. H.	S	98.5	A	95
3080	BARLEY (6-rowed) A. J. Turcotte, Newmarket, N. H.	93.3	98	A	97
3180	BARLEY (6-rowed) J. B. Varick Co., Manchester, N. H.	A	97.8	A	92
3479	BARLEY (Stanford 6-row) Walbridge & Taylor, Peterboro, N. H.	A	95	A	95
3030	BEANS (Ky. Wonder) J. H. Seavey, Dover, N. H.	A	98	A	92
3032	BEANS (Pole Hart) J. H. Seavey, Dover, N. H.	A	98	A	90
3036	BEANS (Wardell Warp) J. H. Seavey, Dover, N. H.	A	98	A	92
3204	BEANS (Soja-Medium Green) J. B. Varick Co., Manchester, N. H.	A	97	A	90
3094	BUCKWHEAT (Japanese) R. L. Costello, Portsmouth, N. H.	A	99.5	A	98
2982	BUCKWHEAT (Japanese) Eugene C. Foss Co., Rochester, N. H.	A	98	A	90
3120	BUCKWHEAT (Japanese) Hill Hdw. & Paint Co., Nashua, N. H.	A	98	A	90
3331	BUCKWHEAT (Japanese) Holbrook Grocery Co., Woodsville, N. H.	A	97.8	A	98
3368	BUCKWHEAT (Japanese) Jackson & Durgin, Littleton, N. H.	S	99	74.5	87
3241	BUCKWHEAT (Japanese) J. S. Morrill, Laconia, N. H.	A	98	A	90
3271	BUCKWHEAT Shepard Bros., Franklin, N. H.	A	95	A	94
3077	BUCKWHEAT (Japanese) E. T. Willson, Farmington, N. H.	A	98	A	90
3156	BUCKWHEAT (Japanese) J. B. Varick Co., Manchester, N. H.	A	99.5	A	98
3482	CORN (3417) P. E. Belisle, Hillsboro, N. H.	A	95	A	92
3483	CORN (3488) P. E. Belisle, Hillsboro, N. H.	A	95	S	90
3216	CORN (Dwarf Leaming) O. A. Brown, Ashland, N. H.	S	99	S	98
3280	CORN (Mastodon) E. H. Bryant, Tilton, N. H.	A	98	A	90
2996	CORN (Early Wonder) Freeman Carson, Rochester, N. H.	S	99.2	A	90

* Sample badly damaged by mice in transit.

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3488	CORN (<i>Leaming Fodder</i>).....	S	99.5	A	94
	G. H. Eames & Son, Keene, N. H.				
3390	CORN (<i>Gold Dollar</i>).....	S	100	S	100
	A. H. Hill, Lebanon, N. H.				
3391	CORN (<i>Rising's 80-day special</i>).....	S	100	A	90
	A. H. Hill, Lebanon, N. H.				
3392	CORN (<i>Rising's North Star</i>).....	S	100	A	90
	A. H. Hills, Lebanon, N. H.				
3117	CORN (<i>Leaming</i>).....	A	98	A	95
	Hilliard & Kimball, Exeter, N. H.				
3178	CORN (<i>King of Earlies</i>).....	S	99.5	A	90
	McQuesten & Lewis, Manchester, N. H.				
3179	CORN (<i>Silver King</i>).....	S	99.5	A	96
	McQuesten & Lewis, Manchester, N. H.				
3162	CORN (<i>Excelsior</i>).....	A	98	A	90
	J. J. Moreau & Son, Manchester, N. H.				
3023	CORN (<i>Leaming</i>).....	A	95	A	90
	F. W. Neal, Dover, N. H.				
3145	CORN (<i>Early Canada</i>).....	A	98	A	90
	W. F. Peel, Nashua, N. H.				
3152	CORN (<i>Yellow Leaming</i>).....	A	99	S	90
	W. F. Peel, Nashua, N. H.				
3246	CORN (<i>Yellow Leaming</i>).....	S	99	A	90
	J. E. Reardon, Ashland, N. H.				
3352	CORN (<i>Pride of North</i>).....	A	98	A	90
	I. C. Richardson, Littleton, N. H.				
3004	CORN (<i>Early Wonder</i>).....	99+	..	A	90
	Rochester Grocery Co., Rochester, N. H.				
3005	CORN (<i>Sanford Ensilage</i>).....	99+	..	A	95
	Rochester Grocery Co., Rochester, N. H.				
3037	CORN (<i>Evergreen</i>).....	A	98	A	92
	J. H. Seavey, Dover, N. H.				
3038	CORN (<i>Black Mexican</i>).....	A	98	A	90
	J. H. Seavey, Dover, N. H.				
3039	CORN (<i>Red</i>).....	A	98	A	86
	J. H. Seavey, Dover, N. H.				
3040	CORN (<i>Early Crosby</i>).....	A	98	A	90
	J. H. Seavey, Dover, N. H.				
2967	CORN (<i>Leaming Pedigree</i>).....	A	98	A	90
	Somersworth Grain Co., Somersworth, N. H.				
3363	CORN (<i>Gold Dollar</i>).....	S	100	A	90
	F. B. Spaulding, Lancaster, N. H.				
3364	CORN (<i>Early King</i>).....	S	100	A	90
	F. B. Spaulding, Lancaster, N. H.				
3155	CORN (<i>Dwarf Leaming</i>).....	S	99	S	98
	J. B. Varick Co., Manchester, N. H.				
3169	CORN (<i>Eureka</i>).....	A	97	A	94
	J. B. Varick Co., Manchester, N. H.				
3176	CORN (<i>Early Mastodon</i>).....	A	96	A	90
	J. B. Varick Co., Manchester, N. H.				
3205	CORN (<i>Evergreen Fodder</i>).....	A	95	A	90
	J. B. Varick Co., Manchester, N. H.				
3281	CRIMSON CLOVER.....	A	97	A	85
	E. H. Bryant, Tilton, N. H.				
3041	KENTUCKY BLUE GRASS (<i>Glass</i>).....	A	80	52.5	80
	C. L. Jenness Hdw. Co., Dover, N. H.				
3188	KENTUCKY BLUE GRASS (<i>47159</i>).....	A	88.5	73.5	86
	Manchester Hdw. Co., Manchester, N. H.				
2973	KENTUCKY BLUE GRASS (<i>89687</i>).....	A	73	A	70
	Thompson & Hoague Co., Concord, N. H.				
2979	KENTUCKY BLUE GRASS.....	A	74	60	79
	Thompson & Hoague Co., Concord, N. H.				
3199	KENTUCKY BLUE GRASS.....	A	80	28	73
	J. B. Varick Co., Manchester, N. H.				
3426	MILLET (<i>3355</i>).....	S	99.5	A	95
	Abbott Grocery Co., Keene, N. H.				
3295	MILLET (<i>Japanese</i>).....	A	98	A	86
	F. S. Albord & Co., Conway, N. H.				

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3296	MILLET (<i>H-80311</i>)	A	99	A	82
	F. S. Albord & Co., Conway, N. H.				
2990	MILLET (<i>Hungarian</i>)	S	99	S	97
	Ayers & Jenkins, Rochester, N. H.				
2991	MILLET (<i>Japanese</i>)	A	97.7	A	75
	Ayers & Jenkins, Rochester, N. H.				
3299	MILLET (<i>Japanese</i>)	A	98	A	90
	F. W. Bean, No. Conway, N. H.				
3249	MILLET (<i>Hungarian</i>)	A	90	A	90
	J. W. Beede & Co., Meredith, N. H.				
3250	MILLET (<i>Japanese</i>)	A	98	S	90
	J. W. Beede & Co., Meredith, N. H.				
3389	MILLET (<i>Hungarian</i>)	A	98	A	90
	Bell Hardware Co., Derry, N. H.				
3214	MILLET (<i>Hungarian</i>)	71.2 ¹	99.5	A	82
	O. A. Brown, Ashland, N. H.				
3217	MILLET (<i>Hungarian</i>)	A	99.3	S	92
	O. A. Brown, Ashland, N. H.				
3253	MILLET (<i>Hungarian XX</i>)	A	97	A	85
	W. B. Brown, Ashland, N. H.				
3259	MILLET (<i>3971</i>)	A	95	S	89
	W. B. Brown, Ashland, N. H.				
3283	MILLET (<i>Japanese</i>)	95	98	A	90
	E. H. Bryant, Tilton, N. H.				
3284	MILLET (<i>Hungarian</i>)	A	98	A	90
	E. H. Bryant, Tilton, N. H.				
3219	MILLET (<i>Hungarian Choice</i>)	A	97.2	A	85
	A. F. Burr Co., Plymouth, N. H.				
2998	MILLET (<i>Hungarian</i>)	A	98	A	78
	Freeman Carson, Rochester, N. H.				
3211	MILLET (<i>Hungarian Fancy</i>)	A	98.5	A	90
	Chase Grain Co., Plymouth, N. H.				
3092	MILLET (<i>Japanese</i>)	A	98	A	85
	R. L. Costello, Portsmouth, N. H.				
3101	MILLET (<i>Golden</i>)	A	98.5	A	89
	R. L. Costello, Portsmouth, N. H.				
3140	MILLET (<i>Japanese</i>)	A	98	89	96
	C. A. Daniels, Hudson, N. H.				
3141	MILLET (<i>Hungarian</i>)	A	99.5	A	82
	C. A. Daniels, Hudson, N. H.				
3485	MILLET (<i>Japanese</i>)	A	92.1	84	90
	G. H. Eames & Son, Keene, N. H.				
3334	MILLET (<i>Hungarian</i>)	A	99.6	A	85
	Edson & Kinne, Littleton, N. H.				
3012	MILLET (<i>Japanese</i>)	A	97	A	88
	Eugene C. Foss Co., Rochester, N. H.				
3019	MILLET (<i>Hungarian</i>)	A	98	A	85
	Eugene C. Foss Co., Rochester, N. H.				
3493	MILLET (<i>Japanese</i>)	A	98	A	90
	W. F. French, Milford, N. H.				
3456	MILLET (<i>Japanese Stunford</i>)	A	95	A	90
	Frost & Pierce, Claremont, N. H.				
3476	MILLET (<i>Hungarian</i>)	S	99.5	A	82
	Goodnow & Derby, Peterboro, N. H.				
3407	MILLET (<i>Japanese</i>)	A	97	S	90
	C. M. Hildreth & Son, Lebanon, N. H.				
3122	MILLET (<i>Japanese</i>)	A	97	A	85
	Hill Hdw. & Paint Co., Nashua, N. H.				
3123	MILLET (<i>Hungarian Fancy</i>)	A	97	A	85
	Hill Hdw. & Paint Co., Nashua, N. H.				
3317	MILLET (<i>Fancy</i>)	A	97.2	A	82
	Holbrook Grocery Co., Woodsville, N. H.				
3318	MILLET (<i>Choice</i>)	A	90.5	66	78
	Holbrook Grocery Co., Woodsville, N. H.				
3319	MILLET (<i>Hungarian XX</i>)	A	97	A	85
	Holbrook Grocery Co., Woodsville, N. H.				
3320	MILLET (<i>Hungarian-Monadnock</i>)	A	98	A	90
	Holbrook Grocery Co., Woodsville, N. H.				

(1) Impurity largely clover seed.

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sam- ple No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaran- teed	Found	Guaran- teed
3322	MILLET (<i>Japanese Fancy</i>) Holbrook Grocery Co., Woodsville, N. H.	A	97	S	86
3439	MILLET (<i>Hungarian-Monadnock</i>) Holbrook Grocery Co., Keene, N. H.	A	98	A	90
3307	MILLET (84068) C. H. Jameson, Colebrook, N. H.	A	98	A	92
3042	MILLET (<i>Japanese</i>) C. L. Jenness Hdw. Co., Dover, N. H.	A	98	A	90
3047	MILLET (<i>Hungarian</i>) C. L. Jenness Hdw. Co., Dover, N. H.	A	98	S	90
3494	MILLET (<i>Hungarian-Emerson</i>) Kendall & Wilkins, Milford, N. H.	A	97	A	86
3495	MILLET (84068) Kendall & Wilkins, Milford, N. H.	A	98	S	92
3305	MILLET (<i>Fancy Jap.</i>) Leavitt, Gould & Hulbert, Colebrook, N. H.	S	97	A	86
3402	MILLET (<i>Japanese</i>) Lewis Bros., Lebanon, N. H.	A	90.5	S	78
3403	MILLET (<i>Hungarian-Conklin</i>) Lewis Bros., Lebanon, N. H.	A	98	A	78
3187	MILLET (<i>Hungarian</i>) Manchester Hardware Co., Manchester, N. H.	A	97.8	A	86
3189	MILLET (<i>Hungarian</i>) Manchester Hardware Co., Manchester, N. H.	A	99.5	A	86
3192	MILLET (<i>Japanese</i>) Manchester Hardware Co., Manchester, N. H.	A	98	87	95
3443	MILLET (<i>Hungarian</i>) R. T. Martin, Newport, N. H.	A	98	S	90
3177	MILLET (<i>Japanese</i> 34066) McQuesten & Lewis, Manchester, N. H.	A	97	S	96
3230	MILLET Meredith Grain Co., Meredith, N. H.	A	97	A	90
3232	MILLET (<i>Hungarian</i>) Meredith Grain Co., Meredith, N. H.	S	98	A	90
3238	MILLET (<i>Hungarian</i>) J. S. Morrill, Laconia, N. H.	A	97	A	88
3240	MILLET (<i>Japanese</i>) J. S. Morrill, Laconia, N. H.	A	97	A	85
3197	MILLET (<i>Japanese</i>) F. H. Morse Co., Manchester, N. H.	A	97	A	88
3196	MILLET (<i>Hungarian</i>) F. H. Morse Co., Manchester, N. H.	A	97	A	88
3342	MILLET (<i>Hungarian-XX</i>) Moulton & Clark, Lisbon, N. H.	A	97	S	95
3137	MILLET (<i>Hungarian</i>) Nashua Beef Co., Nashua, N. H.	A	99.3	A	86
3024	MILLET (<i>Japanese</i>) F. W. Neal, Dover, N. H.	A	98	A	90
3027	MILLET (<i>Hungarian</i>) F. W. Neal, Dover, N. H.	A	97	A	85
3028	MILLET (<i>Hungarian</i>) F. W. Neal, Dover, N. H.	A	98	A	90
3183	MILLET (<i>Hungarian</i>) Parker Bros., Goffstown, N. H.	A	97.2	A	85
3150	MILLET (<i>Japanese</i>) W. F. Peel, Nashua, N. H.	A	98	S	92
3151	MILLET (<i>Hungarian</i>) W. F. Peel, Nashua, N. H.	A	97	A	86
3091	MILLET (<i>Hungarian</i>) Pelletier Bros., Farmington, N. H.	A	98	A	90
3129	MILLET (<i>Hungarian</i>) W. R. Peterson, Nashua, N. H.	A	98	A	90
3130	MILLET (<i>Japanese</i>) W. R. Peterson, Nashua, N. H.	A	98	S	90

A—Above
S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3088	MILLET (<i>Japanese</i>) Read-Esty Co., Farmington, N. H.	A	95	S	90
3089	MILLET (<i>Hungarian</i>) Read-Esty Co. Farmington, N. H.	A	98	S	97
3247	MILLET (<i>Japanese Fancy</i>) J. E. Read & Son, Ashland, N. H.	A	98	A	90
3248	MILLET (<i>Hungarian</i>) J. E. Read & Son, Ashland, N. H.	A	98	A	90
3353	MILLET (<i>Hungarian</i>) I. C. Richardson, Littleton, N. H.	85.6	97	A	88
3356	MILLET (<i>Japanese</i>) I. C. Richardson, Littleton, N. H.	A	96	A	88
3300	MILLET (<i>Japanese</i>) A. L. Roberts, Conway, N. H.	A	98.8	A	88
3301	MILLET (<i>Hungarian</i>) A. L. Roberts, Conway, N. H.	A	98	A	90
3440	MILLET (<i>Hungarian-XX</i>) F. P. Rowell, Newport, N. H.	S	97	S	80
3370	MILLET (<i>Japanese</i>) E. F. Royal, Colebrook, N. H.	A	98.2	A	95
2918	MILLET (<i>Hungarian</i>) H. C. Sanborn, Laconia, N. H.	A	98	A	90
2919	MILLET (<i>Japanese</i>) H. C. Sanborn, Laconia, N. H.	A	98	S	90
3087	MILLET (<i>Hungarian</i>) S. A. Schurman & Son, Portsmouth, N. H.	A	98	S	90
3108	MILLET (<i>Golden</i>) S. A. Schurman & Son, Portsmouth, N. H.	A	98	73.5	90
3049	MILLET (<i>Hungarian</i>) J. H. Seavey, Dover, N. H.	A	99.5	A	86
3055	MILLET (<i>Japanese</i>) J. H. Seavey, Dover, N. H.	A	98	59.5	92
3272	MILLET (<i>Japanese</i>) Shepard Bros., Franklin, N. H.	A	95	A	92
3277	MILLET (<i>Hungarian</i>) Shepard Bros., Franklin, N. H.	A	97	S	92
2964	MILLET (<i>Hungarian</i>) Somersworth Grain Co., Somersworth, N. H.	A	98.5	S	94
3361	MILLET (<i>Japanese</i>) F. B. Spaulding Co., Lancaster, N. H.	A	97	S	98
3263	MILLET (<i>Hungarian</i>) C. P. Stevens, Franklin, N. H.	A	98.8	A	92
2968	MILLET (<i>German</i>) Thompson & Hoague Co., Concord, N. H.	A	99.2	A	87
2978	MILLET (<i>Hungarian</i>) Thompson & Hoague Co., Concord, N. H.	A	99.5	A	86
3078	MILLET (<i>Japanese</i>) A. J. Turcotte, Newmarket, N. H.	S	99	A	90
3160	MILLET (<i>Japanese</i>) J. B. Varick Co., Manchester, N. H.	A	98	S	85
3171	MILLET (<i>Hungarian</i>) J. B. Varick Co., Manchester, N. H.	A	99.5	A	82
3478	MILLET (<i>Japanese</i>) Walbridge & Taylor, Peterboro, N. H.	A	94	A	90
3411	MILLET (<i>Japanese</i>) F. B. Williams, Enfield, N. H.	A	97.2	S	90
3414	MILLET (<i>Hungarian</i>) F. B. Williams, Enfield, N. H.	A	98	S	87
3071	MILLET (<i>Hungarian</i>) E. T. Willson, Farmington, N. H.	A	98	A	90
3115	MILLET (<i>Hungarian</i>) W. A. Young, Exeter, N. H.	A	98	A	90
3116	MILLET (<i>Japanese</i>) W. A. Young, Exeter, N. H.	A	98	S	90
3262	OATS (<i>White Mt.</i>) W. B. Brown, Ashland, N. H.	S	99	A	97

A—Above
S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3221	OATS (<i>Silver Mine</i>).....	S	99	S	98
3206	A. F. Burtt & Co., Plymouth, N. H.	S	99	A	98
3081	Chase Grain Co., Plymouth, N. H.	S	99	S	97
2985	OATS (<i>Fancy Seed Oats-Hygrade</i>).....	A	98	A	90
3459	G. R. Emerson, Farmington, N. H.	A	98.5	A	98
2959	OATS (<i>Amendt</i>).....	A	90	S	95
3394	Frost & Pierce, Claremont, N. H.	*	99	A	97
3121	OATS (<i>White Mt.</i>).....	A	92	A	85
3409	C. M. Hildreth & Son, Lebanon, N. H.	*	96	S	100
3432	Hill Hdw. & Paint Co., Nashua, N. H.	*	99	A	97
3369	OATS (<i>Excelsior</i>).....	A	99	S	97
3043	OATS (<i>Chas. Con Co.</i>).....	93.3	98	A	90
3233	L. C. Hill, Enfield, N. H.	S	99	A	97
3242	OATS (<i>White Mt.</i>).....	*	95.5	A	95
3026	Meredith Grain Co., Meredith, N. H.	A	98	A	98
3303	OATS (<i>Welcome</i>).....	*	99.5	S	100
3225	F. W. Neal, Dover, N. H.	S	99	A	97
3083	OATS (<i>Pennant Brand</i>).....	A	98	A	90
3048	D. A. Noyes, Colebrook, N. H.	S	99.9	A	92
3351	OATS (<i>White Mt.</i>).....	*	99	A	92
3375	N. B. Sanborn, Plymouth, N. H.	S	96.6	A	95
3264	OATS (<i>8215</i>).....	80	99	A	97
3003	S. A. Schurman & Son, Portsmouth, N. H.	91	99	A	96
3159	OATS (<i>Seed</i>).....	96.6	99	S	98
3076	J. H. Seavey, Dover, N. H.	96.6	99	A	97
3114	OATS (<i>Swedish Select</i>).....	A	92	A	96
3173	Frank Smith Co., Lancaster, N. H.	A	72	47.5	85
3212	OATS (<i>White Michigan</i>).....	A	98	A	90
3119	F. B. Spaulding Co., Lancaster, N. H.	A	98	A	90
3464	OATS (<i>White Mt.</i>).....	S	99	A	98
3031	C. P. Stevens, Franklin, N. H.	A	98	S	98
3033	OATS (<i>Ti-o-ga Fancy</i>).....	A	98	A	91
3035	Strafford Co. Grain Mill, Rochester, N. H.	A	98	A	84
	OATS (<i>Ti-o-ga</i>).....				
	J. B. Varick Co., Manchester, N. H.				
	OATS (<i>White Mt. Ex. Fancy</i>).....				
	E. T. Willson, Farmington, N. H.				
	OATS (<i>Silver Mine</i>).....				
	W. A. Young, Exeter, N. H.				
	ORCHARD GRASS.....				
	J. B. Varick Co., Manchester, N. H.				
	PEAS (<i>Canada Field</i>).....				
	Chase Grain Co., Plymouth, N. H.				
	PEAS (<i>Canada Field</i>).....				
	Hill Hdw. & Paint Co., Nashua, N. H.				
	PEAS (<i>Field</i>).....				
	Rand, Ball & King, Claremont, N. H.				
	PEAS (<i>Dwarf Telephone</i>).....				
	J. H. Seavey, Dover, N. H.				
	PEAS (<i>Nott's Excelsior</i>).....				
	J. H. Seavey, Dover, N. H.				
	PEAS (<i>Gradus</i>).....				
	J. H. Seavey, Dover, N. H.				

* Sample badly damaged by mice in transit.

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3373	PEAS (<i>Field 31219</i>)	S	99.5	A	92
3158	F. B. Spaulding Co., Lancaster, N. H. PEAS (<i>Canada Field</i>)	A	98	A	98
3001	J. B. Varick Co., Manchester, N. H. PYRAMID MIXTURE	S	99.6	A	87
3385	Freeman Carson, Rochester, N. H. RAPE	A	96	A	90
2980	Annis Grain & Lumber Co., Derry, N. H. RAPE (<i>94480</i>)	A	99.1	A	90
3472	Thompson & Hoague Co., Concord, N. H. RED CLOVER (<i>Paseco</i>)	A	98.5	A	90
3382	Abbott Grocery Co., Keene, N. H. RED CLOVER (<i>Pan. Amer.</i>)	A	98.5	A	90
2988	Annis Grain & Lumber Co., Londonderry, N. H. RED CLOVER (<i>White Mt.</i>)	A	99.5	A	92
2993	Ayers & Jenkins, Rochester, N. H. RED CLOVER	A	98.8	A	90
3290	Ayers & Jenkins, Rochester, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98	A	90
3298	Bailey & Rogers, Tilton, N. H. RED CLOVER	A	98	S	90
3378	F. W. Bean, No. Conway, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98.5	A	90
3009	Bell Hardware Co., Derry, N. H. RED CLOVER (<i>Pine Tree</i>)	A	98	A	94
3341	Berry & Shorey, Rochester, N. H. RED CLOVER (<i>XXX</i>)	A	99.5	A	91
3454	Bishop & Young, Lisbon, N. H. RED CLOVER (<i>XXX</i>)	A	95	A	84
3215	Boynton & Ellis, Claremont, N. H. RED CLOVER	98.2	99	A	85
3252	O. A. Brown, Ashland, N. H. RED CLOVER (<i>3480</i>)	A	99	A	90
3222	W. B. Brown, Ashland, N. H. RED CLOVER (<i>Liberty Brand 4027</i>) ...	A	98	A	90
3000	O. H. Burt, Plymouth, N. H. RED CLOVER (<i>Crown</i>)	A	99.3	A	90
3431	Freeman Carson, Rochester, N. H. RED CLOVER (<i>A. R. C.</i>)	A	98	A	90
3210	Charlestown Grain Co., Charlestown, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98.5	A	90
3098	Chase Grain Co., Plymouth, N. H. RED CLOVER (<i>Ace Brand</i>)	A	98	A	83
3017	R. L. Costello, Portsmouth, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98.5	A	90
3491	Eugene C. Foss, Rochester, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98	A	90
3475	W. F. French, Milford, N. H. RED CLOVER	A	98.5	A	90
3103	Goodnow & Derby, Peterboro, N. H. RED CLOVER	A	98.5	A	90
3448	J. H. Griffin, Newmarket, N. H. RED CLOVER (<i>Crown</i>)	97.2	98	A	90
3449	F. W. Hamlin, Charlestown, N. H. RED CLOVER (<i>White Mtn.</i>)	S	99.5	A	96
3398	F. W. Hamlin, Charlestown, N. H. RED CLOVER (<i>Mammoth</i>)	A	98	A	90
3126	C. M. Hildreth & Son, Lebanon, N. H. RED CLOVER (<i>Pan Amer.</i>)	A	98.5	A	90
3321	Hill Hdw. & Paint Co., Nashua, N. H. RED CLOVER (<i>XX</i>)	A	95	A	91
3435	Holbrook Grocery Co., Woodsville, N. H. RED CLOVER (<i>XXX</i>)	S	99.5	S	91
3438	Holbrook Grocery Co., Keene, N. H. RED CLOVER (<i>White Mtn.</i>)	S	99.8	A	97
	Holbrook Grocery Co., Keene, N. H.				

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3045	RED CLOVER (<i>Eureka</i>).....	S	99.5	A	90
	C. L. Jenness Hdw. Co., Dover, N. H.				
3292	RED CLOVER (<i>73613</i>).....	A	98	A	88
	Keegan & French, Franklin, N. H.				
3444	RED CLOVER.....	A	98	A	90
	R. L. Martin, Newport, N. H.				
3227	RED CLOVER (<i>Pan Amer.</i>).....	A	98.5	S	90
	Meredith Grain Co., Meredith, N. H.				
3164	RED CLOVER.....	A	97	A	95
	J. J. Moreau & Son, Manchester, N. H.				
3343	RED CLOVER (<i>XX</i>).....	A	95	A	91
	Moulton & Clark, Lisbon N. H.				
3135	RED CLOVER (<i>73773</i>).....	A	98	A	90
	Nashua Beef Co. Nashua, N. H.				
3022	RED CLOVER (<i>Eureka</i>).....	A	99.5	A	90
	F. W. Neal, Dover, N. H.				
3182	RED CLOVER (<i>15136</i>).....	A	98.6	5	94
	Parker Bros., Goffstown, N. H.				
3147	RED CLOVER.....	A	98	A	85
	W. F. Peel, Nashua, N. H.				
3132	RED CLOVER.....	A	98	A	90
	W. R. Peterson, Nashua, N. H.				
3466	RED CLOVER (<i>Eureka</i>).....	A	98	A	90
	Rand, Ball & King, Claremont, N. H.				
3234	RED CLOVER (<i>73613</i>).....	A	98	A	88
	Rand & Dearborn, Laconia, N. H.				
3007	RED CLOVER (<i>XX</i>).....	A	95	A	84
	Rochester Grocery Co., Rochester, N. H.				
3105	RED CLOVER (<i>4027</i>).....	A	98	A	90
	Read, Esty Co., Farmington, N. H.				
3358	RED CLOVER (<i>Pan Amer.</i>).....	A	98	A	90
	I. C. Richardson, Littleton, N. H.				
3461	RED CLOVER (<i>Ace</i>).....	A	98	A	95
	F. P. Rowell, Newport, N. H.				
2975	RED CLOVER (<i>Med. 73722</i>).....	S	99.3	A	93
	Thompson & Hoague Co., Concord, N. H.				
3357	RED CLOVER (<i>73613</i>).....	A	98	A	88
	Weeks & Smith, Meredith, N. H.				
3254	RED CLOVER (<i>Pea Vine</i>).....	91.2	97	49	90
	Weeks & Smith, Meredith, N. H.				
2915	RED CLOVER (<i>Pan Amer.</i>).....	A	98.5	A	90
	H. C. Sanborn, Laconia, N. H.				
3086	RED CLOVER (<i>Imperator</i>).....	A	97.5	A	90
	S. A. Schurman & Son, Portsmouth, N. H.				
3054	RED CLOVER (<i>Ace</i>).....	A	98	A	90
	J. H. Seavey, Dover, N. H.				
2963	RED CLOVER (<i>Medium</i>).....	S	96	A	90
	Somersworth Grain Co., Somersworth, N. H.				
3360	RED CLOVER (<i>124195</i>).....	A	97.5	A	88
	F. B. Spaulding Co., Lancaster, N. H.				
3267	RED CLOVER (<i>Pan Amer.</i>).....	S	99	A	90
	C. P. Stevens, Franklin, N. H.				
3079	RED CLOVER.....	A	92	A	85
	A. J. Turcotte, Newmarket, N. H.				
3175	RED CLOVER.....	S	98	A	88
	J. B. Varick Co., Manchester, N. H.				
3072	RED CLOVER (<i>Liberty</i>).....	A	98	A	90
	E. T. Willson, Farmington, N. H.				
3109	RED CLOVER.....	A	98	S	94
	W. A. Young, Exeter, N. H.				
3469	RED TOP (<i>Ace</i>).....	90	96	63.3	90
	Abbott Grocery Co., Keene, N. H.				
3294	RED TOP (<i>Ace</i>).....	A	91	77	90
	F. S. Albord & Co. Conway, N. H.				
3381	RED TOP (<i>Pan Amer.</i>).....	A	90	A	90
	Annis Grain & Lumber Co., Londonderry, N. H.				

A—Above
S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
2994	RED TOP Ayers & Jenkins, Rochester, N. H.	S	90	S	85
3289	RED TOP (<i>Pan Amer.</i>) Bailey & Rogers, Tilton, N. H.	A	90	68.3	90
3184	RED TOP (<i>92703 Fancy</i>) W. W. Baker, Hudson, N. H.	A	90	71.5	90
3377	RED TOP Bell Hardware Co., Derry, N. H.	A	90	S	90
3010	RED TOP (<i>Pine Tree</i>) Berry & Shorey, Rochester, N. H.	A	90	A	90
3327	RED TOP (<i>92528</i>) Bishop & Young, Lisbon, N. H.	A	91	58.5	..
3453	RED TOP (<i>XX</i>) Boynton & Ellis, Claremont, N. H.	86	90	80.5	90
3258	RED TOP (<i>White Mt. Extra Fancy</i>) ... W. B. Brown, Ashland, N. H.	S	95	S	90
3223	RED TOP (<i>3355 Fancy</i>) A. F. Burt Co., Plymouth, N. H.	A	87	A	85
3285	RED TOP (<i>Pan Amer.</i>) E. H. Bryant, Tilton, N. H.	A	90	57	90
2999	RED TOP (<i>Imperial</i>) Freeman Carson, Rochester, N. H.	A	96	A	86
3452	RED TOP (<i>3428</i>) Charlestown Grain Co., Charlestown, N. H.	A	81	A	85
3208	RED TOP (<i>Pan Amer.</i>) Chase Grain Co., Plymouth, N. H.	A	90	A	90
3099	RED TOP (<i>Ace</i>) R. L. Costello, Portsmouth, N. H.	87	91	S	90
3143	RED TOP (<i>White Mt. Extra Fancy</i>) ... Chas. A. Daniels, Hudson, N. H.	A	95	A	90
3338	RED TOP (<i>XX</i>) Edson & Kinne, Littleton, N. H.	A	80	A	83
3018	RED TOP (<i>Pan Amer.</i>) Eugene C. Foss Co., Rochester, N. H.	A	90	61.8	90
3490	RED TOP (<i>Pan Amer.</i>) W. F. French, Milford, N. H.	A	90	63.8	90
3474	RED TOP (<i>92430</i>) Goodnow & Derby, Peterboro, N. H.	A	91	78.5	90
3104	RED TOP (<i>Pan Amer.</i>) J. H. Griffin, Newmarket, N. H.	A	90	S	90
3127	RED TOP (<i>Pan Amer.</i>) Hill Hdw. & Paint Co., Nashua, N. H.	S	90	S	90
3315	RED TOP (<i>White Mt.</i>) Holbrook Grocery Co., Woodsville, N. H.	A	95	A	90
3316	RED TOP (<i>92703</i>) Holbrook Grocery Co., Woodsville, N. H.	S	90	S	90
3367	RED TOP (<i>Pan Amer.</i>) Jackson & Durgin, Littleton, N. H.	A	90	S	90
3291	RED TOP (<i>Ace</i>) Keegan & French, Franklin, N. H.	A	90	A	90
3404	RED TOP (<i>Bell</i>) Lewis Bros., Lebanon, N. H.	A	92	81.3	92
3186	RED TOP (<i>92524</i>) Manchester Hdw. Co., Manchester, N. H.	A	90	83.8	90
3446	RED TOP (<i>Eureka</i>) R. T. Martin, Newport, N. H.	93.6	95	84.8	90
3231	RED TOP (<i>Pan Amer.</i>) Meredith Grain Co., Meredith, N. H.	S	90	S	90
3163	RED TOP (<i>Fancy</i>) J. J. Moreau & Son, Manchester, N. H.	90	92	A	87
3239	RED TOP (<i>Pan Amer.</i>) J. S. Morrill, Laconia, N. H.	A	90	A	90
3195	RED TOP (<i>Pan Amer.</i>) F. H. Morse, Manchester, N. H.	A	90	S	90
3136	RED TOP (<i>92534 Fancy</i>) Nashua Beef Co., Nashua, N. H.	A	90.6	82.5	90
3021	RED TOP (<i>4165</i>) F. W. Neal, Dover, N. H.	A	85	A	85

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
8146	RED TOP (<i>Fancy No. 1</i>)..... W. F. Peel, Nashua, N. H.	A	90	S	90
3133	RED TOP (<i>R 6</i>)..... W. R. Peterson, Nashua, N. H.	A	90	84.3	90
3236	RED TOP (<i>Ace</i>)..... Rand & Dearborn, Laconia, N. H.	A	91	S	90
3465	RED TOP (<i>Pan Amer.</i>)..... Rand, Ball & King, Claremont, N. H.	A	90	S	90
3357	RED TOP (<i>Pan Amer.</i>)..... I. O. Richardson, Littleton, N. H.	S	90	S	90
3302	RED TOP (<i>92438</i>)..... A. L. Roberts, Conway, N. H.	A	90	S	90
3006	RED TOP..... Rochester Grocery Co., Rochester, N. H.	A	75	68.3	88
3460	RED TOP (<i>Stanford</i>)..... F. P. Rowell, Newport, N. H.	A	90	45.5	90
2922	RED TOP (<i>Pan Amer.</i>)..... H. C. Sanborn, Laconia, N. H.	A	90	S	90
2923	RED TOP (<i>Eureka</i>)..... H. C. Sanborn, Laconia, N. H.	A	95	S	90
3224	RED TOP (<i>XX</i>)..... N. B. Sanborn, Plymouth, N. H.	87	90	80.5	90
3052	RED TOP (<i>Ace</i>)..... J. H. Seavey, Dover, N. H.	A	90	S	90
3273	RED TOP (<i>Fancy</i>)..... Shepard Bros., Franklin, N. H.	A	90	83.8	90
3348	RED TOP (<i>Fancy</i>)..... Frank Smith Co., Lancaster, N. H.	77.6	90	S	90
3326	RED TOP (<i>21411</i>)..... F. B. Spaulding Co., Lancaster, N. H.	A	90	81.3	90
3268	RED TOP (<i>92430</i>)..... C. P. Stevens, Franklin, N. H.	A	91	81.8	90
2981	RED TOP (<i>92487</i>)..... Thompson & Hoague Co., Concord, N. H.	A	90	A	90
3161	RED TOP (<i>Fancy</i>)..... J. B. Varick Co., Manchester, N. H.	A	91	S	90
3481	RED TOP (<i>3355</i>)..... Walbridge & Taylor, Peterboro, N. H.	A	87	A	85
3256	RED TOP (<i>92430</i>)..... Weeks & Smith, Meredith, N. H.	A	91	75.5	90
3069	RED TOP (<i>3355</i>)..... E. T. Willson, Farmington, N. H.	A	87	A	85
3112	RED TOP (<i>Eureka</i>)..... W. A. Young, Exeter, N. H.	A	95	S	90
2987	RYE (<i>Rosen</i>)..... Ayers & Jenkins, Rochester, N. H.	S	98.5	A	90
3376	RYE (<i>Spring</i>)..... Bell Hardware Co., Derry, N. H.	A	98	S	90
3093	RYE (<i>Spring</i>)..... R. L. Costello, Portsmouth, N. H.	S	98	A	89
3486	RYE (<i>Spring</i>)..... G. H. Eames & Son, Keene, N. H.	A	97.5	84.5	90
3397	RYE (<i>Spring</i>)..... C. M. Hildreth & Son, Lebanon, N. H.	A	98	A	90
3333	RYE (<i>Winter</i>)..... Holbrook Grocery Co., Woodsville, N. H.	A	98	A	90
3190	RYE (<i>Spring</i>)..... Manchester Hardware Co., Manchester, N. H.	A	96	85.5	92
3139	RYE (<i>Spring</i>)..... Nashua Beef Co., Nashua, N. H.	A	98	S	95
3029	RYE (<i>Winter</i>)..... F. W. Neal, Dover, N. H.	A	97	A	93
3274	RYE (<i>Spring</i>)..... Shepard Bros., Franklin, N. H.	95	97	84	94
3349	RYE (<i>Spring</i>)..... Frank Smith Co., Lancaster, N. H.	A	98	A	90
3154	RYE (<i>Spring</i>)..... J. B. Varick Co., Manchester, N. H.	A	98	A	89

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3075	RYE (<i>Spring</i>).....	A	99.5	S	96.5
	E. T. Willson, Farmington, N. H.				
3427	TIMOTHY (<i>Bison</i>).....	A	98	A	90
	Abbott Grocery Co., Keene, N. H.				
3383	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	A	94
	Annis Grain & Lumber Co., Londonderry, N. H.				
3388	TIMOTHY (<i>Herald Brand</i>).....	S	98	A	90
	Annis Grain & Lumber Co., Derry N. H.				
2995	TIMOTHY (<i>651478</i>).....	S	99.5	A	95
	Ayers & Jenkins, Rochester, N. H.				
3288	TIMOTHY (<i>Pan Amer.</i>).....	S	99.6	S	95
	Bailey & Rogers, Tilton, N. H.				
3157	TIMOTHY (<i>XX</i>).....	A	98	A	92
	W. W. Baker, Hudson, N. H.				
3297	TIMOTHY (<i>Ace</i>).....	A	98.5	S	92
	F. W. Bean, No. Conway, N. H.				
3379	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	A	94
	Bell Hardware Co., Derry, N. H.				
3011	TIMOTHY (<i>Pine Tree</i>).....	A	99	S	97
	Berry & Shorey, Rochester, N. H.				
3328	TIMOTHY (<i>XXX</i>).....	A	99	S	92
	Bishop & Young, Lisbon, N. H.				
3455	TIMOTHY (<i>Pine Tree</i>).....	97.5	99.5	S	93
	Boynton & Ellis, Claremont, N. H.				
3213	TIMOTHY (<i>Pine Tree</i>).....	A	99.6	A	94
	O. A. Brown, Ashland, N. H.				
3218	TIMOTHY.....	S	99.5	S	95
	O. A. Brown, Ashland, N. H.				
3260	TIMOTHY (<i>Pine Tree</i>).....	S	99.6	A	94
	W. B. Brown, Ashland, N. H.				
3261	TIMOTHY (<i>White Mt. Extra Fancy</i>)...	S	99.8	A	95
	W. B. Brown, Ashland, N. H.				
3286	TIMOTHY (<i>Liberty Brand</i>).....	S	99.5	S	94
	E. H. Bryant, Tilton, N. H.				
3220	TIMOTHY (<i>Liberty Brand</i>).....	A	99.5	A	90
	A. F. Burrill Co., Plymouth, N. H.				
3002	TIMOTHY (<i>King</i>).....	A	99.6	A	90
	Freeman Carson, Rochester, N. H.				
3451	TIMOTHY (<i>Liberty</i>).....	A	99.5	A	90
	Charlestown Grain Co., Charlestown, N. H.				
3207	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	S	94
	Chase Grain Co., Plymouth, N. H.				
2097	TIMOTHY (<i>Pine Tree</i>).....	A	99.6	S	94
	R. L. Costello, Portsmouth, N. H.				
3142	TIMOTHY (<i>65474</i>).....	A	99.6	S	95
	Chas. A. Daniels, Hudson, N. H.				
3484	TIMOTHY (<i>Mastiff</i>).....	A	99	S	95
	George H. Eames & Son, Keene, N. H.				
3336	TIMOTHY (<i>Gold Medal</i>).....	A	99.7	S	94
	Edson & Kinne, Littleton, N. H.				
3339	TIMOTHY (<i>White Mt.</i>).....	99	99.5	S	94
	Edson & Kinne, Littleton, N. H.				
3016	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	A	94
	Eugene C. Foss Co., Rochester, N. H.				
3489	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	S	94
	W. F. French, Milford, N. H.				
3442	TIMOTHY (<i>Gem</i>).....	A	97	S	93
	L. W. Gile, Newport, N. H.				
3473	TIMOTHY (<i>Pine Tree</i>).....	S	99.5	77	94
	Goodnow & Derby, Peterboro, N. H.				
3497	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	A	90
	Goodwin Bros., East Jaffrey, N. H.				
3102	TIMOTHY (<i>Pan Amer.</i>).....	S	99	S	94
	J. H. Griffin, Newmarket, N. H.				
3447	TIMOTHY (<i>King</i>).....	A	99.5	S	93.5
	F. W. Hamlin, Charlestown, N. H.				

A—Above
S—Satisfactory.

SEED EXAMINATION, 1921—Continued.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3450	TIMOTHY (<i>White Mt.</i>).....	S	99.8	S	94
	F. W. Hamlin, Charlestown, N. H.				
3408	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	S	94
	C. M. Hildreth & Son, Lebanon, N. H.				
3128	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	A	94
	Hill Hdw. & Paint Co., Nashua, N. H.				
3118	TIMOTHY (<i>Pine Tree</i>).....	A	99.6	82	95
	Hilliard & Kimball, Exeter, N. H.				
3433	TIMOTHY (<i>Pine Tree</i>).....	S	99.5	A	93.5
	Holbrook Grocery Co., Keene, N. H.				
3434	TIMOTHY (<i>XX</i>).....	A	98	S	92
	Holbrook Grocery Co., Keene, N. H.				
3437	TIMOTHY (<i>White Mt.</i>).....	S	99.8	S	95
	Holbrook Grocery Co., Keene, N. H.				
3366	TIMOTHY (<i>Pine Tree</i>).....	S	99.6	S	94
	Jackson & Durgin, Littleton, N. H.				
3044	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	S	94
	C. L. Jenness Hardware Co., Dover, N. H.				
3406	TIMOTHY (<i>King</i>).....	S	99.6	A	90
	Lewis Bros., Lebanon, N. H.				
3185	TIMOTHY (<i>Pine Tree</i>).....	S	99.6	82	90
	Manchester Hdw. Co., Manchester, N. H.				
3165	TIMOTHY.....	A	99	A	96
	J. J. Moreau & Son, Manchester, N. H.				
3194	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	A	94
	F. H. Morse, Manchester, N. H.				
3228	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	A	90
	Meredith Grain Co., Meredith, N. H.				
3138	TIMOTHY (<i>Pine Tree</i>).....	A	99.5	A	96
	Nashua Beef Co., Nashua, N. H.				
3020	TIMOTHY (65478).....	A	99.5	A	95
	F. W. Neal, Dover, N. H.				
3384	TIMOTHY.....	S	99.5	A	94
	W. A. Neal, Derry, N. H.				
3181	TIMOTHY (<i>Pine Tree</i>).....	S	99.5	S	94
	Parker Bros., Goffstown, N. H.				
3148	TIMOTHY (<i>Bay State</i>).....	S	99.5	A	95
	W. F. Peel, Nashua, N. H.				
3090	TIMOTHY.....	S	98	S	85
	Pelletier Bros., Farmington, N. H.				
3134	TIMOTHY (<i>Pan Amer.</i>).....	A	99	A	90
	W. R. Peterson, Nashua, N. H.				
3496	TIMOTHY (84612).....	98.2	99	A	93
	C. H. Plummer, East Jaffrey, N. H.				
3235	TIMOTHY (<i>Pine Tree</i>).....	S	99.6	A	95
	Rand & Dearborn, Laconia, N. H.				
3467	TIMOTHY (<i>Gold Medal</i>).....	S	99.5	S	94
	Rand, Ball & King, Claremont, N. H.				
3106	TIMOTHY (<i>Liberty</i>).....	A	99.5	S	97
	Read-Esty Co., Farmington, N. H.				
3359	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	A	90
	I. C. Richardson, Littleton, N. H.				
3293	TIMOTHY (65148).....	S	99.5	S	92
	A. L. Roberts, Conway, N. H.				
3245	TIMOTHY (<i>Gold Medal</i>).....	S	99.7	S	94
	G. N. Roberts, Meredith, N. H.				
3008	TIMOTHY (<i>Durham</i>).....	S	99.6	87.5	94
	Rochester Grocery Co., Rochester, N. H.				
3462	TIMOTHY (<i>XX</i>).....	A	98	S	92
	F. P. Rowell, Newport, N. H.				
3463	TIMOTHY (<i>Pine Tree</i>).....	S	99.5	S	95
	F. P. Rowell, Newport, N. H.				
2920	TIMOTHY (<i>Pan Amer.</i>).....	A	99.5	S	90
	H. C. Sanborn, Laconia, N. H.				
2921	TIMOTHY (<i>Pan Amer.</i>).....	S	99.5	88	94
	H. C. Sanborn, Laconia, N. H.				
3226	TIMOTHY (<i>Pine Tree</i>).....	A	99.6	A	92
	N. B. Sanborn, Plymouth N. H.				

A—Above

S—Satisfactory.

SEED EXAMINATION, 1921—Concluded.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity		Germination	
		Found	Guaranteed	Found	Guaranteed
3085	TIMOTHY (<i>Pan Amer.</i>)..... S. A. Schurman & Son, Portsmouth N. H.	S	99.5	S	94
3051	TIMOTHY (<i>Pine Tree</i>)..... J. H. Seavey, Dover, N. H.	S	99.6	A	93
3270	TIMOTHY (<i>Bay State</i>)..... Shepard Bros., Franklin, N. H.	S	99.5	S	94
3279	TIMOTHY (<i>Gem</i>)..... Shepard Bros., Franklin, N. H.	A	97	A	93
3347	TIMOTHY (<i>Pan Amer.</i>)..... Frank Smith Co., Lancaster, N. H.	S	99.5	A	94
2965	TIMOTHY (65342)..... Somersworth Grain Co., Somersworth, N. H.	99	99.6	S	95
3374	TIMOTHY (13286)..... F. B. Spaulding Co., Lancaster, N. H.	S	99.5	A	94
3269	TIMOTHY (<i>Pine Tree</i>)..... C. P. Stevens, Franklin, N. H.	A	99	S	95
2976	TIMOTHY (<i>Pine Tree</i>)..... Thompson & Hoague Co., Concord, N. H.	A	99.6	S	95
3198	TIMOTHY (<i>Durham</i>)..... J. B. Varick Co., Manchester, N. H.	S	99.5	A	95
3255	TIMOTHY..... Weeks & Smith, Meredith, N. H.	S	99.6	A	94
3413	TIMOTHY (<i>Pine Tree</i>)..... F. B. Williams, Enfield, N. H.	A	99	S	94
3070	TIMOTHY (<i>Liberty</i>)..... E. T. Willson, Farmington, N. H.	A	98.5	A	95
3111	TIMOTHY (<i>Pan Amer.</i>)..... W. A. Young, Exeter, N. H.	S	99.5	A	94
3034	TURNIP (<i>Rutabaga</i>)..... J. H. Seavey, Dover, N. H.	A	98	77.5	92
3203	VETCH (<i>Spring</i>)..... J. B. Varick Co., Manchester, N. H.	A	93	A	83
3095	WHEAT (<i>Spring</i>)..... R. L. Costello, Portsmouth, N. H.	S	99.5	A	96
2983	WHEAT..... Eugene C. Foss Co., Rochester, N. H.	S	99.5	A	96
3401	WHEAT (<i>Spring</i>)..... C. M. Hildreth & Son, Lebanon, N. H.	A	98	A	90
3332	WHEAT (<i>Winter</i>)..... Holbrook Grocery Co., Woodsville, N. H.	S	99	A	95
3354	WHEAT (<i>Spring</i>)..... I. C. Richardson, Littleton, N. H.	A	98	A	90
3275	WHEAT (<i>Spring</i>)..... Shepard Bros., Franklin, N. H.	A	98	A	92
3346	WHEAT (<i>Marquis</i>)..... F. B. Spaulding Co., Lancaster, N. H.	A	99.5	A	95
3265	WHEAT (<i>Marquis</i>)..... C. P. Stevens, Franklin, N. H.	S	99	S	95
3386	WHITE CLOVER..... Annis Grain & Lumber Co., Derry, N. H.	A	96	A	90
3100	WHITE CLOVER (88016)..... R. L. Costello, Portsmouth, N. H.	A	96	A	88
2984	WHITE CLOVER..... Eugene C. Foss Co., Rochester, N. H.	A	95	S	88
3393	WHITE CLOVER..... C. M. Hildreth & Son, Lebanon, N. H.	A	95	A	90
3167	WHITE CLOVER..... J. J. Moreau & Son, Manchester, N. H.	A	97	S	95
2972	WHITE CLOVER..... Thompson & Hoague Co., Concord, N. H.	A	94.1	S	90
3170	WHITE CLOVER..... J. B. Varick Co., Manchester, N. H.	A	96	A	83

A—Above

S—Satisfactory.

TABLE SHOWING RESULTS OF TESTS AND EXAMINATION OF SAMPLES
OF SEEDS SUBMITTED BY THE COMMISSIONER OF AGRICULTURE
FROM JULY 1, 1920, TO JULY 1, 1921.

Kind of Seed	Number	Purity				Germination			
		Highest Per cent.	Lowest Per cent.	Average Per cent.	Standard	Highest Per cent	Lowest Per cent	Average Per cent	Standard
Alfalfa	12	99.8	98.7	99.4	98	98	73.5	93	85-90
Alsike	41	99.8	90.6	98.5	95	99	86.5	95.1	75-80
Barley	29	99+	93.3	98.9	99	100	90	98.3	90-95
Buckwheat	9	99+	99+	99+	99	100	74.5	96.8	90-95
Corn	31	99+	99+	99+	99	100	90	96.7	90-95
Millet	100	99.9	71.2	98.6	99	100	59.5	90.9	85-90
Oats	27	99+	93.3	96.8	99	100	92	94.4	90-95
Red Clover	58	99.9	91.2	97.3	98	99	5	94.4	85-90
Red Top	59	98.4	77.6	92.4	95	93.8	45.5	82.8	75-80
Rye	13	99+	95	98.3	99	99	84	93.2	90-95
Timothy	80	99.9	97.5	99.4	98	98	77	93.5	85-90
Wheat	8	99+	99	99+	99	100	95	98.6	90-95
White Clover	7	99.8	98.6	99.3	95	95	86	92.1	75-80
Miscellaneous	24								
Total	498								

State of New Hampshire

DEPARTMENT OF AGRICULTURE

DIVISION OF SEED INSPECTION

CHAPTER 80—SESSION LAWS OF 1921.

AN ACT TO REGULATE THE SALE OF AGRICULTURAL SEEDS.

SECTION 1. That the term "agricultural seeds" or "agricultural seed" as used in this act, shall be defined as the seeds of timothy, redtop, alfalfa, alsike clover, crimson clover, red clover, sweet clover, white clover, Hungarian millet, fescues, Canada blue grass, Kentucky blue grass, brome grass, tall meadow oat grass, orchard grass, Italian rye grass, perennial rye grass, sudan grass, Canada field peas, cowpeas, soy beans, vetches and other grasses and forage plants including turnips, rutabagas and mangles, also barley, buckwheat, corn, oats, rye, wheat and other cereals which are sold, offered or exposed for sale within this state for sowing or seeding purposes.

SECT. 2. Every lot or parcel of agricultural seeds, as defined in section 1 of this act when in bulk packages or other containers of one- (1) pound or more, shall have affixed thereto, in a conspicuous place on the exterior of the container, a plainly written or printed statement clearly and truly certifying: *First*, the commonly accepted name of such agricultural seed; *second*, its approximate percentage of purity or its freedom from foreign matter or from other seeds distinguishable by their appearance, and, in the case of "special mixtures," the statement shall contain the name and approximate percentage by weight of each kind of agricultural seed in such mixture in excess of five (5) per cent. by weight of the total mixture; *third*, the approximate percentage of germination of such agricultural seed together with the month and year said seed was tested; *fourth*, the full name and address of the vender of such agricultural seed.

SECT. 3. No person shall sell, or expose for sale, garden seeds or flower seeds in tied or sealed packets unless the same are plainly marked with the year in which the seed was tested.

SECT. 4. The word "approximate" as used in this act shall be defined in rules and regulations provided by the state commissioner of agriculture who shall be guided by the "rules and methods of testing" adopted and approved by the Association of Official Seed Analysts of North America.

SECT. 5. The percentages of purity and of germination of agricultural seeds as required to be shown by section 2 of this act shall be based upon tests or analyses conducted either by the state commissioner of agriculture or his agents, or by the seed merchant or his agents, *provided* that such tests or analyses made by the seed merchant or his agents shall conform to the reasonable regulations which said commissioner is hereby authorized to prescribe, or to the regulations or methods of testing adopted by the Association of Official Seed Analysts.

SECT. 6. The duty of enforcing the provisions of this act shall be vested in the state commissioner of agriculture. The said commissioner, upon notice to the seed merchants of this state through bulletins of his department or of the agricultural experiment station, shall be empowered to prescribe such reasonable rules and regulations and to appoint such analysts, agents and inspectors as may be necessary to secure the efficient en-

forcement of this act. It shall be the duty of said commissioner to publish, or cause to be published, the results of tests and analyses of samples of agricultural seeds drawn as hereinafter provided, together with the names and addresses of the persons from whom the samples of seed were obtained. In his discretion, also, the said commissioner may publish such other information as he may deem advisable concerning the value, character and use of certain seeds.

SECT. 7. It shall be the duty of said commissioner either by himself or through his duly authorized agents, to inspect, sample, analyze and test any agricultural seeds sold, offered or exposed for sale for seeding purposes within this state, at such time and place and to such extent as he may determine. The commissioner and his inspectors shall have access at all reasonable hours to any premises or structures to take samples of any such agricultural seeds as may be in the possession of any importer, merchant, or agent, and he is hereby given authority in person or by his inspectors, upon notice to the importer, merchant or agent to take for analysis a composite sample of such agricultural seeds.

Said sample shall be taken from a parcel or number of packages which shall not be less than five (5) per cent. of the whole lot inspected and shall be thoroughly mixed. From this composite sample two official samples shall be taken, each of which shall be securely sealed. One of these official samples shall be furnished to the seed merchant or party in interest, and the other retained by the commissioner or his inspector for test and analysis.

SECT. 8. In case a sample drawn as provided in the preceding section is found upon test and analysis to fall below the statement on the label attached to the lot or container from which said sample was secured, or if any agricultural seeds which are not properly labeled are being sold, offered or exposed for sale within the state, the commissioner of agriculture is hereby empowered to seize and hold such seed until proper labeling is effected by the owner or seller of said seed.

SECT. 9. It shall be unlawful for any person, firm or corporation to sell, offer or expose for sale within this state for seeding purposes any agricultural seeds or mixture thereof, as defined in this act, without complying with the requirements of the act, or to falsely mark or label any agricultural seeds or to interfere in any way with the commissioner of agriculture or his inspectors in the discharge of the duties herein named.

SECT. 10. Every violation of the provisions of this act relating to failure to label, or false labeling, shall be deemed a misdemeanor punishable by a fine not exceeding one hundred dollars. If the commissioner of agriculture shall find upon examination, test or analysis, that any person, firm or corporation has violated any of the provisions of this act, he or his duly authorized agent may institute proceedings in a court of competent jurisdiction to have such person, firm or corporation convicted therefor, or the said commissioner, in his discretion, may report the results of such examination or tests to the attorney-general, together with a sworn statement of the analyst and such other evidence of said violation as may have come to his knowledge or into his possession.

SECT. 11. Any citizen of this state shall have the privilege of submitting to the state commissioner of agriculture samples of agricultural seeds for test and analysis, subject to such rules and regulations as may be adopted by said commissioners; *provided, however*, that the commissioner of agriculture may by such regulations fix the maximum number of samples that may be tested or analyzed free of charge for any one citizen in any one period of time and fix charges for tests and analyses of

samples submitted in excess of the number tested free of charge.

SECT. 12. Chapter 61, Laws of 1909, as amended by chapter 89, Laws of 1915, and all acts or parts of acts inconsistent herewith are hereby repealed.

SECT. 13. This act shall take effect September 1, 1921.

Approved April 8, 1921.

Rules and Regulations Relative to the Provisions and Enforcement of the Law Governing the Sale of Agricultural Seeds

(CHAPTER 80—SESSION LAWS OF 1921.)

1. Definition of word "*approximate*." By approximate percentage of *purity* (Sec. 2) is meant the actual percentage of purity within certain prescribed limits of variation. The variation or tolerance allowed by the term "*approximate*" is known as "*double tolerance*" and is computed by the following formula: $T = .2 \left(.1 + \frac{100-P}{10} \right)$ where "*T*" represents the variation to be allowed; ".2" an arbitrary constant used; and "*P*" the percentage of purity found. For example if a sample of seed is found to be 94.8% pure the variation allowed according to the formula would be 1.24, and a statement of 96% purity would be considered "*approximately*" correct.

A detailed explanation of purity variations and a table of tolerance for them will be found on pp. 19 and 20 of the Proceedings of the Association of Official Seed Analysts of North America for 1917.

By approximate percentage of germination (Sec. 2) is meant the actual germination within the limits of variation allowed by the Rules for Testing adopted by the Association of Official Seed Analysts of North America. At the present time these variations are as follows:

Stated Percentage of Germination	Percentage of Variation Allowed.
90 or over	6
80 or over and less than 90	7
70 or over and less than 80	8
60 or over and less than 70	9
40 or over and less than 60	10

For example, if a sample of seed was found to germinate 91% and was certified to germinate 96% the latter statement would be considered "*approximately*" correct because it is within the percentage of variation allowed.

2. Taking of samples.

Failure to secure representative samples is one of the most common causes of variation in tests of seed. The following directions for sampling are given.

(1.) The minimum weight of seed for tests should be approximately:

- (a) one ounce of grass seed of any kind or of white and alsike clover;
- (b) two ounces of red and crimson clover, alfalfa, millet, flax, or seed of like size.
- (c) one-half pound of cereals or seed of like size.

(2.) Samples must be drawn so that they will represent as accurately as possible the bulk lot from which they are taken. They may be drawn:—

- (a) with seed triers which must be long enough to extend at least three inches into the bag; or
- (b) with a long sticker, which, when used in bags, will be extended from the top toward the bottom near the center; or
- (c) by hand, according to the circumstances described below.

(3.) Closed bags of clovers, grasses and other small seeds may be sampled:—

- (a) with a seed trier, taking approximately equal parts from near the top, near the middle, and near the bottom; or
- (b) with a long sticker.

(4.) Open bags, full or nearly so, may be sampled:—

- (a) by taking approximately one-third of the sample from the top of the bag by hand or with a seed trier, one-third from near the middle and one-third from near the bottom with a seed trier; or
- (b) with a long sticker.

(5.) Bags partly emptied may be sampled:

- (a) by dumping and mixing before sampling by hand; or
- (b) with a long sticker.

(6.) Sacks of grain or other large seeds may be sampled:

- (a) with a long sticker; or
- (b) by hand, taking approximately equal parts of the sample from at least three different places on the sack, including the top and opposite sides as near the bottom as practicable.

(7.) If a bag, full or nearly so, is to be sampled and no seed trier or sticker is available, the contents may be emptied out and approximately equal parts taken from at least three places in the pile, top, center and edge.

(8.) Any seed loose in boxes, barrels, bins, cars or other receptacle may be sampled by taking approximately equal parts from at least three different places, top, center and edge, by hand or with a long sticker as circumstances may require.

(9.) Field, root, garden vegetable, or other seeds in carton boxes or paper bags may be sampled by emptying out the contents and taking seed from at least three different places to make up the sample. With paper packet seeds the whole packet should be taken.

(10.) If the seed drawn from different parts of a lot is in excess of the amount required for a sample, it must be thoroughly mixed before the sample to be sent for analysis is taken from it.

(11.) Samples should be drawn from each bag when there are less than five bags in the lot; and from every fifth bag when there are more than five bags.

(12.) The samples from different bags or from different parts of a pile or lot must be thoroughly mixed and a composite sample taken. From this composite sample *two* official samples shall be taken, each of which shall be securely sealed. One of these official samples shall be furnished to the seed merchant and the other retained by the seed inspector for testing. (See Sec. 7.)

3. Methods of Testing:

If the seed merchant desires to base his statements of purity and germination upon his own tests or analyses (See Sec. 5) he must make these tests according to the "rules and methods of testing" adopted and approved by the Association of Official Seed Analysts of North America. The tests and analyses conducted by this department are made in practically all cases according to the aforesaid rules and regulations, and in order that variations due to different methods of testing may be avoided the same methods of testing should be adopted and used in all laboratories.

Copies of the official rules and regulations for testing will be furnished by this department to seed merchants of the State upon request.

4. Tests made by the Department:

In order to assist the seed merchants in complying with the provisions of this law the department of agriculture will make tests for purity and germination without charge in so far as the facilities of the laboratory will permit. The department, however, reserves the right (See Sec. 11) to limit the number of tests made for any individual or dealer within a given period of time. The charges made for tests and analyses of samples submitted in excess of the number tested free will be based upon the actual cost of doing the work.

5. Sample Labeling Card:

Every lot of agricultural seeds, as defined in Sec. 1 of the law, in packages or containers of one pound or more shall have a conspicuous label attached. The following form of label on a card 3 x 5 inches is suggested.

Timothy (White Mtn.)

Purity	99%
Germination	95%

Tested, January, 1922.

For sale by—Brown & James.

Concord, N. H.

6. Seizure and Holding of Seed:

If the seed inspector finds any agricultural seeds being sold which are not properly labeled or which upon testing are found to fall below the statements on their labels, (See Sec. 8) such seeds will be seized and held by the commissioner of Agriculture until they are properly labeled.

7. Garden Packet Seeds:

The law requires (See Sec. 3) that all garden and flower seeds in sealed packets shall be marked with the year in which the enclosed seed was tested. Seed dealers and others selling these packet seeds should make certain that the parties from

whom they purchase these packets mark them properly; otherwise the dealers themselves will have to do it. In any event the dealers will be held responsible for the proper marking of the packets.

Andrew L. Felker,

Concord, N. H.,

Commissioner of Agriculture.

September 1, 1921.

ENFORCEMENT OF THE LAW.

The Commissioner of Agriculture, whose duty it is to enforce the seed law of the state, has experienced considerable difficulty in securing satisfactory results, owing to certain weaknesses in the old law.

These have been corrected in the new law, Chapter 80—Session Laws of 1921, and under it all parties concerned may expect that an honest effort will be made to correct any vicious practices that are discovered.

The increased appropriation available for the work will make it possible to handle the seed sampling and testing to much better advantage, and should tend toward better protection for both the farmers who buy the seed, and the honest dealers who sell it; at the same time it will make possible the conducting of a campaign against apparently unscrupulous merchants who seem to have regard neither for the quality of the seed they sell, nor for the rights of the individuals who buy.

The unanimous opinion of the members of the Advisory Board of the Department of Agriculture is that hardly a greater injury comes to the farmers than through the purchase of seed possessing a low percentage of viability. Losses from this source are heavy to the farmers of New Hampshire.

It should be of vital concern to the dealers, in the interests of agriculture, to sell none but the choicest seeds and to advertise them as such by means of reliable and up-to-date tests, properly displayed. This would result in an increased production of agricultural products, and when such production fell short of a reasonable standard, the cause would be easily traced to the farmer's lack of proper planting, cultivation, fertilization, etc., or to a poor natural condition of the soil for the crops produced rather than to the seed used.

However, if poor seed is to be sold it must be sold under tests, showing reasonably close, the germinating power and purity it possesses and not under ancient and unreliable tests made several months prior to the offering of the seed for sale.

